c.—THERAPEUTICS OF THE NERVOUS SYSTEM AND MIND.

CHLOROXALAETHYLIN.—This new synthetic alkaloid, the formula of which is $C.^6 H.^9 Cn,^2$ has been experimented with by Dr. C. Binz, who publishes his results in the *Arch. f. Exp. Pathol.*, IV., p. 340, (abst. in *Centralbl. f. d. Med. Wissensch.*) Using a watery solution, it was found that, in frogs, paralysis of the motor and sensory spinal ganglia appeared within a few minutes, followed later by paralysis of peripheral nerves. Altogether, its action is very similar to that of coniin. If a frog's nerve is immersed in a 2 per cent. solution, the irritability of the sensory fibres is destroyed within five minutes, that of the motor fibres lasts somewhat longer; the direct muscular irritability is also extinguished by immediate action of a 2 per cent. solution. The heart of a poisoned frog cannot be stopped any more by powerful electric irritation or be inhibited in its activity; in fact, the poison paralyzes, the peripheral terminations of the vagus, and is, as further experiments more particularly show, a new antagonist of muscarine. In a rabbit, and in a cat, after an injection of 0.25–0.3 grm. (= 3.75—4.50 gr.) irritation of the vagus by an induction current was without effect. No mydriatic action was detected. In a rabbit, which had received a subcutaneous injection (0.5) of the substance, it could be detected in the urine, together with indications of an intense irritation of the kidneys, and the vesical mucous membrane. Among the toxic phenomena is also a considerable lowering of the bodily temperature. A young cat that survived the injection of 0.2 grms. (= 3 grs.) some five hours, showed a fall of temperature from 37° C. to 26 (= from 98°. 6 F. to 46°. 8F.)

NERVE-STRETCHING IN CENTRAL DISEASE.—Nussbaum has recently applied the treatment by nerve-stretching, consisting in laying bare, and forcibly extended the nerve-trunk, which he had formerly used in certain nervous affections of peripheral origin—(tonic cramps and attacks of pain caused by wounds, reflex epilepsy, etc.) in a case of disease of undoubted central origin, also with good results. A young man suffered from paraplegia of the lower extremities, with paralysis of the sphincters, caused by a fall on the sacral bone. This paraplegia was accompanied by very painful clonic cramps of the lower extremities, recurring daily. Nussbaum stretched the crural nerve under Poupart's ligament, and the sciatic nerve between the great trochanter and the tuberosity of the ischium, in both limbs, both at one operation, and with the result of completely stopping the clonic cramps, and enabling the patient to move about the room with the aid of proper orthopædic appliances, and crutches—a thing he had not been able to do before since his accident-*Mittheilung und Auszuge aus dem Aerzt. Intelligenzblatt. Berl. klin. Woch. enschr*, No. 23.

THE HYPNOTIC ACTION OF LACTIC ACID AND THE LACTATE OF SODA. N. Jerusalimsky *Moskowski Wratschevni Westnik*, 1876, No. 7, (*Abstr. in St. Petersburger med. Wochenschr.*) Induced by a communication of W. Preyer in the *Centralblatt* ("Schlafe durch Ermuedungsstoffe hervorgerufen") Jerusalimsky carried on a series of experimental and clinical investigations on lactic acid and lactate of soda. Some of the animals experimented on gave no definite results, hence the author concludes that they were unsuited for the purpose. In several healthy individuals (2 women and three men) the medicine in considerable doses, produced only moderate effects.

Clinically, the effects of lactic acid were observed in twenty-two cases of sleeplessness in the course of quite different diseases, among them five cases of hysteria, and in only a very small proportion was the effect *nul* or undecided. In most, sleep followed the administration in one half to one hour. A fact published by Lothar Meyer, *Virchows Archiv*. 1876, Hft. I, is noteworthy in this connection; *viz.* that the addition of a very small amount of lactate of soda to morphia in obstinate hysterical sleeplessness, is very effective. Contraindications to these remedies are any kind of disorders of the intestinal tract.

COLCHICINE. The following are the conclusions of a recent memoir by M. J. Rossbach, *Pfluegers Archiv*, XII, VI. 308, on the physiological action of colchicine.

1. Colchicine is a very slow poison which kills animals in comparatively small doses.

2. The carnivora are the most susceptible to this poison, the herbivora and omnivora, less so, and the cold-blooded animals, least of all.

3. The intensity of the toxic action and the duration of life after poisonous doses, are not very dependent upon the size of the dose.

4. The central nervous system, after a preliminary excitement, becomes paralyzed.

5. The irritation stage of the spinal functions in the frog, is best shown by the appearance of cramps of the extensors. Still, in many frogs, this is absent, and in most warm-blooded animals, the indications of this stage are altogether wanting, or at least, are very insignificant, so that the paralysis seems to come on at once.

6. The final paralysis of the nervous system is alike complete in all animals. The gray matter of the cerebrum is paralyzed (loss of sensation and consciousness), as is also the reflex apparatus of the spinal cord (complete loss of reflex excitability). The respiratory centre is likewise rendered less active, and is finally paralyzed entirely.

7. The peripheral terminations of the sensory nerves are also paralyzed.

8. The motor nerves and the striated muscles, on the other hand, are probably not affected by colchicine.

9. The circulatory organs are but slightly affected in all animals. The heart beats with unaltered force almost to death, and beats still long after the death of the central nervous system, and after the cessation of breathing; its final death appears not to be due to the drug, but to the secondary alterations of the blood.